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| 09/652,591 | 08/30/2000 | Scott A. Idlas | 2393/516 | 4358 |

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EXAMINER

JACKSON, MONIQUE R

ART UNIT PAPER NUMBER

1773

DATE MAILED: 03/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,591

Applicant(s)

IDLAS, SCOTT A.

Examiner

Monique R Jackson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-80 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: at line 11, "C4-C8" should read "C₄-C₈"; at line 11, "g/cm3" should read "g/cm³"; at line 16, "C3-C8" should read "C₃-C₈" and "g/cm3" should read "g/cm³"; and at line 19, the parenthesis should be removed or replaced by commas to clarify that "based on said copolymer" is a part of the claimed invention.

Appropriate correction is required.

2. Claim 45 is objected to because of the following informalities: at line 4, the parenthesis should be removed or replaced by commas to clarify that "based on said copolymer" is a part of the claimed invention. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 and 48-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Idlas in view of Lustig et al (USPN 4,863,769) and in further view of Peiffer et al (USPN 6,063,482). Idlas teaches a multilayer, preferably biaxially oriented, heat shrinkable film suitable for processing and/or packaging cook-in foods such as ham, roast beef and poultry having an excellent combination of oxygen barrier, heat seal and optical properties as well as low extractable content levels comprising at least five sequential layers with a first layer consisting essentially of a copolymer of propene and at least one C₂-C₈ alpha-olefin having a propene

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content of at least 60 wt %, preferably at least 90wt% and optionally at least 95wt%, with a melting point less than 140°C, preferably about 126-136°C; a second layer comprising (1) a first copolymer of ethylene and at least one C₄-C₈ alpha-olefin having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 1.0 dg/min and (2) a second copolymer of ethylene with from 4 to 18%, preferably 4 to 12%, of a vinyl ester or alkyl acrylate; a third gas barrier layer of EVOH or a blend of EVOH and nylon; a fourth layer the same as the second layer; and a fifth layer of a first copolymer of ethylene and at least one C₄-C₈ having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 1.0dg/min, and a second copolymer of ethylene with from 4 to 18%, preferably 4 to 12%, of a vinyl ester or alkyl acrylate, and optionally a third copolymer of ethylene and at least one C₃-C₈ alpha-olefin having a density of less than 0.900 g/cm³ and a melting point of less than 85°C; wherein the propene copolymer of the first layer is preferably a propylene-ethylene copolymer, preferably polymerized from a process using a metallocene catalyst (Abstract; Col. 6, lines 53-65; Col. 10, lines 15-40; Col. 11, lines 47-62; Claim 9.) Though Idlas teaches the use of EVOH as the gas barrier layer, it is well known in the art that EVOH, nylon, and PVDC, including vinylidene chloride-vinyl chloride and vinylidene chloride-methyl acrylate copolymers, are functionally equivalent barrier materials utilized in the art wherein Idlas specifically teaches that known packaging films typically contain EVOH, nylon, and/or PVDC barrier layers (Col. 2, line 43-Col. 3, line 37) and hence would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any of these known and conventional barrier materials based on the desired barrier and film properties for a particular end use. In addition, Lustig et al teach a biaxially oriented, heat shrinkable film comprising a gas barrier core layer that may be either ethylene vinyl alcohol or polyvinylidene

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chloride with a vinylidene chloride content of 70-95wt% copolymerized with vinyl chloride or acrylate esters providing a film suitable for packaging food articles such as meat products (Abstract; Col. 16, lines 31-57) and hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to substitute polyvinylidene chloride having a vinylidene chloride content of 70-95wt% as taught by Lustig et al for EVOH layer in the invention taught by Idlas. Idlas also teaches that the multilayer films have a thickness of 10 mils (254 microns) or less with the first layer comprising the propene copolymer being the food contact layer and may further include adhesive layers or additional intermediate layers wherein the packaging films have low levels of extractables with compliance with governmental regulations for food contact (Col. 6, lines 64-65; Col. 7, lines 26-41; Col. 8, lines 15-24.) Though Idlas teaches that the packaging film has low extractable levels and contains a first layer preferably comprising a propylene-ethylene copolymer formed in the presence of metallocene catalysts, wherein it is well known in the art that copolymers formed by metallocene catalysts have narrow molecular weight distribution Mw/Mn, Idlas does not teach the n-hexane extractable content and the Mw/Mn of the propene copolymer as instantly claimed. However, it is well known in the art that Mw/Mn and n-hexane extractable content are results of the polymerization process and are result-effective variables affecting the properties of the copolymers formed, particularly the melt processability and heat seal properties of the polymer as evidenced by Peiffer et al. Peiffer et al specifically teach a packaging film comprising a propylene polymer containing at least 90wt% propylene units and not more than 10wt% ethylene units wherein the propylene polymer is polymerized in the presence of metallocene catalysts producing a polymer structure having an n-heptane extractable content of less than 1.0wt% and a

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low molecular weight distribution of less than 4, particularly 1.5 to 2.7, wherein the structure of the propylene polymer provides a packaging film having improved film properties including elasticity and high gloss (Col. 3, line 38 - Col. 4, lines 67.) Hence it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize routine experimentation to determine the optimum polymerization conditions to produce the metallocene-catalyzed propene copolymer taught by Idlas having the desired Mw/Mn and n-hexane extractable content for a particular end use, wherein Peiffer et teach the production of metallocene-catalyzed propylene copolymers having n-hexane extractable content and Mw/Mn values as instantly claimed.

5. Claims 22-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Idlas in view of Lustig et al and in further view of Peiffer et al. The teachings of Idlas in view of Lustig et al and in further view of Peiffer et al are discussed above. Though Idlas teaches that the packaging films may further comprise additional intermediate layers, Idlas does not specifically teach the incorporation of an intermediate or transition layer between the first propene copolymer layer and the second ethylene blend layer, however, it is well known in the art that tie or intermediate layers can be provided between two adjacent layers wherein the tie or transition layer is a blend of the polymer materials utilized in the two adjacent layers thereby providing improved adhesion between the two layers. Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an intermediate layer as taught by Idlas between the first propene layer and the second ethylene blend layer wherein it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize routine experimentation to determine the optimum blend composition and thickness of the intermediate

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layer based on the composition of the first and second layers of the film taught by Idlas to provide the desired adhesion between the two layers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.


The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



mrj
March 11, 2002



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700